

Scientific Papers by Robert Oppenheimer

- 1926a** On the quantum theory of vibration-rotation bands. *Proceedings of the Cambridge Philosophical Society*, 23 (1925-1927): 327-335 (received May 24, 1926).
- 1926b** On the quantum theory of the problem of the two bodies. *Proc. Camb. Phil. Soc.*, 23 (1925-1927): 422-431 (read July 26, 1926).
- 1926c** Quantum theory and intensity distribution in continuous spectra. *Nature*, 118 (November 27, 1926): 771 (dated October 30, 1926).
- 1926d** Quantentheorie des kontinuierlichen Absorptionsspektrums. *Naturwissenschaften*, 14 (December 24, 1926): 1282 (dated November 1, 1926).
- 1927a** Zur Quantentheorie kontinuierlicher Spektren. *Zeitschrift für Physik*, 41 (1927): 268-293 (received December 24, 1926).
- 1927b** Zur Quantenmechanik der Richtungsentartung. *Zeit. f. Phys.*, 43 (1927): 27-46 (received March 8, 1927).
- 1927c** Bemerkung zur Zerstreuung der α -Teilchen. *Zeit. f. Phys.*, 43 (1927): 413-415 (received April 30, 1927).
- 1927d** Zur Quantentheorie der Molekeln (with M. Born). *Annalen der Physik*, 4th ser., 84 (1927): 457-484 (received August 25, 1927).
- 1927e** On the quantum theory of the polarization of impact radiation. *Proceedings of the National Academy of Sciences*, 13 (December 15, 1927): 800-805 (communicated October 26, 1927).
- 1928a** Three notes on the quantum theory of aperiodic effects. *Physical Review*, 31 (January 1928): 66-81 (dated August 1927).
- 1928b** On the quantum theory of the capture of electrons. *Phys. Rev.*, 31 (March 1928): 349-356 (dated December 1927).
- 1928c** On the quantum theory of the Ramsauer effect. *Proc. N. A. S.*, 14 (March 15, 1928): 261-262 (communicated February 21, 1928).
- *1928d** On the quantum theory of field currents. *Phys. Rev.*, 31 (May 1928): 914.
- 1928e** On the quantum theory of the autoelectric field currents. *Proc. N. A. S.*, 14 (May 15, 1928): 363-365 (communicated March 28, 1928).
- 1928f** On the quantum theory of electronic impacts. *Phys. Rev.*, 32 (September 1928): 361-376 (dated May 1928).
- 1929** Über die Strahlung der freien Elektronen im Coulombfeld. *Zeit. f. Phys.*, 55 (1929): 725-737 (received May 6, 1929).
- *1930a** Why does molecular hydrogen reach equilibrium so slowly? (with H. Hall). *Phys. Rev.*, 35 (January 1, 1930): 132-133.
- 1930b** Note on the theory of the interaction of field and matter. *Phys. Rev.*, 35 (March 1, 1930): 461-477 (received November 12, 1929).
- 1930c** On the theory of electrons and protons. *Phys. Rev.*, 35 (March 1, 1930): 562-563 (dated February 14, 1930).

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- 1930d** Two notes on the probability of radiative transitions. *Phys. Rev.*, 35 (April 15, 1930): 939–947 (received March 4, 1930).
- *1931a** Selection rules and the angular momentum of light quanta. *Phys. Rev.*, 37 (January 15, 1931): 231.
- *1931b** Note on the statistics of nuclei. *Phys. Rev.*, 37 (January 15, 1931): 232–233.
- 1931c** Note on the statistics of nuclei (with P. Ehrenfest). *Phys. Rev.*, 37 (February 15, 1931): 333–338 (received December 23, 1930).
- 1931d** Relativistic theory of the photoelectric effect, part II: Photoelectric absorption of ultragamma radiation (with H. Hall). *Phys. Rev.*, 38 (July 1, 1931): 57–59, 71–79 (received May 7, 1931).
- *1931e** Photoelectric absorption of ultra-gamma radiation (with H. Hall). *Phys. Rev.*, 38 (August 1, 1931): 589.
- 1931f** Note on light quanta and the electromagnetic field. *Phys. Rev.*, 38 (August 15, 1931): 725–746 (received June 26, 1931).
- 1931g** On the range of fast electrons and neutrons (with J. F. Carlson). *Phys. Rev.*, 38 (November 1, 1931): 1787–1788 (dated October 9, 1931).
- *1932a** On the range of fast electrons and neutrons (with J. F. Carlson). *Phys. Rev.*, 39 (March 1, 1932): 864–865.
- 1932b** The impacts of fast electrons and magnetic neutrons (with J. F. Carlson). *Phys. Rev.*, 41 (September 15, 1932): 763–792 (received July 18, 1932).
- *1933a** The disintegration of lithium by protons of high energy. *Phys. Rev.*, 43 (March 1, 1933): 380.
- 1933b** On the production of the positive electron (with M. S. Plesset). *Phys. Rev.*, 44 (July 1, 1933): 53–55 (dated June 9, 1933).
- 1933c** The production of positives by nuclear gamma-rays (with L. Nedelsky). *Phys. Rev.*, 44 (December 1, 1933): 948–949 (dated November 18, 1933).
- *1934a** On the production of positives by nuclear gamma-rays (with L. Nedelsky). *Phys. Rev.*, 45 (January 15, 1934): 136.
- 1934b** On the theory of the electron and positive (with W. H. Furry). *Phys. Rev.*, 45 (February 15, 1934): 245–262 (received December 1, 1933).
- 1934c** The production of positives by nuclear gamma-rays—errata (with L. Nedelsky). *Phys. Rev.*, 45 (February 15, 1934): 283.
- *1934d** The theory of the electron and positive. *Phys. Rev.*, 45 (February 15, 1934): 290.
- 1934e** On the theory of the electron and positive (with W. H. Furry). *Phys. Rev.*, 45 (March 1, 1934): 343–344 (dated February 12, 1934).
- 1934f** On the limitations of the theory of the positron (with W. H. Furry). *Phys. Rev.*, 45 (June 15, 1934): 903–904 (dated June 2, 1934).
- 1934g** On the scattering of the Th C'' γ -rays (with C. C. Lauritsen). *Phys. Rev.*, 46 (July 1, 1934): 80–81 (dated June 12, 1934).
- 1935a** Are the formulae for the absorption of high energy radiations valid? *Phys. Rev.*, 47 (January 1, 1935): 44–52 (received November 12, 1934).
- 1935b** Note on charge and field fluctuations. *Phys. Rev.*, 47 (January 15, 1935): 144–145 (received December 3, 1934).

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- 1935c** Note on the production of pairs by charged particles. *Phys. Rev.*, 47 (January 15, 1935): 146–147 (received December 3, 1934).
- 1935d** The disintegration of the deuteron by impact. *Phys. Rev.*, 47 (June 1, 1935): 845–846 (received March 29, 1935).
- 1935e** Note on the transmutation function for deuterons (with M. Phillips). *Phys. Rev.*, 48 (September 15, 1935): 500–502 (received July 1, 1935).
- *1936a** On the elementary interpretation of showers and bursts. *Phys. Rev.*, 50 (August 15, 1936): 389.
- *1936b** The density of nuclear levels (with R. Serber). *Phys. Rev.*, 50 (August 15, 1936): 391.
- 1937a** On multiplicative showers (with J. F. Carlson). *Phys. Rev.*, 51 (February 15, 1937): 220–231 (received December 8, 1936).
- 1937b** The disintegration of high energy protons (with G. Nordheim, L. W. Nordheim, and R. Serber). *Phys. Rev.*, 51 (June 15, 1937): 1037–1045 (received March 22, 1937).
- 1937c** Note on the nature of cosmic-ray particles (with R. Serber). *Phys. Rev.*, 51 (June 15, 1937): 1113 (dated June 1, 1937).
- 1937d** Note on nuclear photoeffect at high energies (with F. Kalckar and R. Serber). *Phys. Rev.*, 52 (August 15, 1937): 273–278 (received May 19, 1937).
- 1937e** Note on resonances in transmutations of light nuclei (with F. Kalckar and R. Serber). *Phys. Rev.*, 52 (August 15, 1937): 279–282 (received May 19, 1937).
- 1938a** Note on boron plus proton reactions (with R. Serber). *Phys. Rev.*, 53 (April 15, 1938): 636–638 (received February 1, 1938).
- 1938b** On the stability of stellar neutron cores (with R. Serber). *Phys. Rev.*, 54 (October 1, 1938): 540 (dated September 1, 1938).
- 1939a** On massive neutron cores (with G. M. Volkoff). *Phys. Rev.*, 55 (February 15, 1939): 374–381 (received January 3, 1939).
- 1939b** Discussion—Behavior of high energy electrons in cosmic radiation by C. G. Montgomery and D. D. Montgomery. *Reviews of Modern Physics*, 11 (July–October 1939): 264–266.
- 1939c** On continued gravitational contraction (with H. Snyder). *Phys. Rev.*, 56 (September 1, 1939): 455–459 (received July 10, 1939).
- 1939d** On pair emission in the proton bombardment of fluorine (with J. S. Schwinger). *Phys. Rev.*, 56 (November 15, 1939): 1066–1067 (dated October 29, 1939).
- 1940a** The production of soft secondaries by mesotrons (with R. Serber). *Phys. Rev.*, 57 (January 15, 1940): 75–81 (received November 3, 1939).
- *1940b** On the applicability of quantum theory to mesotron collisions. *Phys. Rev.*, 57 (February 15, 1940): 353.
- 1941a** On the spin of the mesotron. *Phys. Rev.*, 59 (March 1, 1941): 462 (dated February 14, 1941).

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- 1941b** On the selection rules in beta-decay. *Phys. Rev.*, 59 (June 1, 1941): 908 (dated April 25, 1941).
- 1941c** On the interaction of mesotrons and nuclei (with J. Schwinger). *Phys. Rev.*, 60 (July 15, 1941): 150–152 (received June 19, 1941).
- *1941d** Internal conversion in photosynthesis. *Phys. Rev.*, 60 (July 15, 1941): 158.
- *1941e** The high energy soft component of cosmic rays (with R. F. Christy). *Phys. Rev.*, 60 (July 15, 1941): 159.
- *1941f** Multiple production of mesotrons by protons (with E. C. Nelson). *Phys. Rev.*, 60 (July 15, 1941): 159–160.
- *1941g** On the internal pairs from oxygen. *Phys. Rev.*, 60 (July 15, 1941): 164.
- 1941h** The mesotron and the quantum theory of fields. In Enrico Fermi et al., *Nuclear Physics*. Philadelphia: University of Pennsylvania Press. Pp. 39–50.
- *1942** Pair theories of meson scattering (with E. C. Nelson). *Phys. Rev.*, 61 (February 1 and 15, 1942): 202.
- 1946** Reaction of radiation on electron scattering and Heitler's theory of radiation damping (with H. A. Bethe). *Phys. Rev.*, 70 (October 1 and 15, 1946): 451–458.
- 1948a** The multiple production of mesons (with H. W. Lewis and S. A. Wouthuyssen). *Phys. Rev.*, 73 (January 15, 1948): 127–140 (received October 2, 1947).
- 1948b** Note on stimulated decay of negative mesons (with S. T. Epstein, R. J. Finkelstein). *Phys. Rev.*, 73 (May 15, 1948): 1140–1141 (received February 5, 1948).
- 1949** Discussion on the disintegration and nuclear absorption of mesons: remarks on μ -decay. *Rev. Mod. Phys.*, 21 (1949): 34–35.
- 1950** Internal conversion in the photosynthetic mechanism of blue green algae (with W. Arnold). *Journal of General Physiology*, 33 (1950): 423–435.

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